



## Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at <http://about.jstor.org/participate-jstor/individuals/early-journal-content>.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact [support@jstor.org](mailto:support@jstor.org).

## OPEN LETTERS.

## Pink and yellow pond-lilies.

Pink pond-lilies are very commonly sold in Providence at the card store of Mr. E. C. Davis. Correspondents can always purchase them here in good shape. What I write to record, however, is the presence now, in the same shop, of a bunch of these lilies which are of an exquisite shade of pale yellow. I never saw anything like them before. Both kinds come from Cape Cod. We used to have, according to George Thurber, a locality for the pink ones near Providence; it has long since vanished.

Mr. J. F. Collins has found *Lotus corniculatus* here.—W. W. BAILEY, Providence, R. I.

---

## NOTES AND NEWS.

Two forms of registering apparatus for studying transpiration are described by Messrs. Taylor and Frost.

THE MAY number of the *Student* opens with a sprightly sketch of Julius von Sachs by Mr. Hubert M. Skinner.

THE TWO PAPERS of botanical interest in the June number of the *Forstlich-naturwissenschaftliche Zeitschrift* are "the quality and structure of fir wood," by Dr. R. Hartig and "the influence of elevation on the temperature of the soil," by Dr. E. Ebermayer.

A LUCID SUMMARY of our present knowledge of the nature and origin of fecundation both in the plant and animal world is to be found in the February and April numbers of the *American Naturalist*. It is the text (and illustrations) of a lecture delivered by Mr. H. J. Webber of the Shaw School of Botany before the Alumni Association of St. Louis Medical College.

HERR AMM, under the direction of Prof. Detmer, has conducted a series of experiments on the intramolecular respiration of plants, by which he has demonstrated the direct dependence of this sort of respiration on temperature, and on the stage of growth of the plants. It increases up to the optimum temperature for normal respiration, and also with the age of the seedlings, up to nine days.—See *Ber. d. deutsch. bot. Gesells.*, vol. x, heft 4.

A PRIZE of a thousand marks is offered by the Experiment Station of Middle Java for the best investigation on the causes and prevention of the disease of Sorghum which is characterized by the reddening of the fibrovascular bundles. The limit of time for the investigation will be announced later. Manuscripts have to be written in German, and the usual precautions for withholding the name of the writer from the committee of award are to be observed.

THE WISCONSIN ACADEMY of Sciences, Arts and Letters held its field meeting for 1892 at Ripon, Wis., on June 2—4. The plans of the committee regarding out-door work were completely blocked by the steady

rains. A preliminary paper on the flora of Dane county, Wis., was presented by Messrs. R. H. True and L. S. Cheney of the University of Wisconsin, and Prof. C. R. Barnes delivered the public address in the Ripon College Chapel on "Asa Gray."

DR. J. C. ARTHUR publishes in the May number of *Agricultural Science*, a paper read before the Society for the Promotion of Agricultural Science at its Washington meeting, on the physiological basis for the comparison of potato production. He concludes that to make fair comparisons the seed material must be of the same weight, roughness and number of pieces; and that if the tuber is divided, only the same regions of the same weight tubers are comparable.

W. C. SHANNON, Asst. Surg. U. S. A., as member of the Central Division of the Intercontinental Railway Commission has collected specimens of the natural history of the various regions of Guatemala embraced in the surveys of the Commission. Capt. M. M. Macomb, U. S. A., Engineer in charge, has turned over the entire botanical material to Mr. J. Donnell Smith for elaboration, and for distribution to the chief herbaria. These plants will accordingly form part of the extensive series entitled, *Ex Plantis Guatemalensibus quas edidit John Donnell Smith*.

AT THE LAST commencement of the University of Wisconsin two of the theses presented were of botanical interest. Mr. A. M. TenEyck read an honor thesis on the "Regermination of seeds." Mr. Ten Eyck has carried out a long series of experiments to determine the number of times seeds of various garden and field plants could be made air-dry without destroying their vitality. Some, notably the cereals, will stand an astonishing amount of this hard treatment, growing after as many as 12 desiccations.<sup>1</sup> For the degree of M. S., Mr. Rodney H. True presented a thesis "On certain species of the so-called orthocarpous *Dicrana*." This will be published as part of a revision of the *Dicrana* in preparation by Messrs. Barnes and True.

THE PROGRAM of the international botanical congress, to be held at Genoa between the 4th and 11th of September, 1892, has been issued. Sunday, Sept. 4, is devoted to a reception of the foreign botanists. Various excursions are planned during the week. All the sittings of the congress will be public. The official language will be Italian, but it will be free to everybody when speaking or in discussions to use whatever language he may be most familiar with. It was not considered advisable to fix any special subjects for discussion, but it is announced that the reform of botanical nomenclature will be treated in accordance with O. Kuntze's recent book! After the congress, the committee will print a brief account of the meetings and will publish also the original memoirs.

PAUL SCHOTTLÄNDER has found that the same differential standing of the sexual cells of plants is possible as Auerbach has demonstrated in the sexual elements of animals. Sections of the prothallium of *Gym-*

<sup>1</sup> In the May number of the *Revue gen. de Botanique* M. Gaston Bonnier records some similar but much less comprehensive experiments on the revival of seedlings after complete desiccation.

*nogramme chrysophylla* showing both antheridia and archegonia were double stained by Rosen's method, which will be described in the next part of Cohn's *Beiträge zur Biologie der Pflanzen*. Under this treatment the bodies of the spermatozoa are colored intense blue, while the plasma and nucleus of the egg cell are red. We see possibilities of material aid in determining the homologies of the embryo sac structures by this process. Schottländer's paper is only preliminary to fuller researches and publication.

THE FIRST REPORT of the director, Prof. F. H. Snow, of the temporary station of the University of Kansas, which was established "to promote and conduct experiments for the destruction of chinch-bugs by contagion or infection," has recently been issued, and forms an octavo volume of 230 pages, with plates and map. There are three diseases of chinch-bugs studied by the station: the white-fungus disease caused by *Sporotrichum globuliferum*, the gray-fungus disease caused by *Empusa aphidis*, and the bacterial disease caused by *Micrococcus insectorum*. The fungous diseases thrive in damp weather and the bacterial disease in dry weather. In 1891 three-fourth of the attempts to artificially carry infection were successful. Reports were received from 1400 farmers.

THE INTENSITY of the breathing process in plants which thrive in shade compared with those which require full exposure to sunlight has been investigated by Adolf Mayer (*Landw. Vers. Stat.*, XL, 203). For one class he used house plants, such as *Tradescantia zebrina* and *Saxifraga sarmentosa*, and for the other class field plants, such as rye. The leaves of the house plants took up much less oxygen in the same time, than those of the field plants as compared either with their living volume or dry weight. From this he concludes that plants which thrive in the shade, while unable to assimilate as much nutriment as others for want of sufficient light, yet are able to provide the same excess by reason of the lower intensity of the oxidation processes.

WILHELM RAATZ describes and figures, in the *Berichte der deutschen botanischen Gesellschaft* x. 183, the tyloses which he has discovered in the tracheides of species of conifers. In the same journal (vol. vii) Conwentz had declared the existence of such structures in the wood of the trees producing amber. But Raatz holds that this rests on a false interpretation of the structures seen and that the true tyloses are now for the first time figured and described. They are quite similar to the same structures in the angiosperms but are much less common, apparently arising only in the wood near a wound; as if the energetic radial division of the cambium to cover a wound spread to the neighboring tissues.

THE HOPKINS SEASIDE LABORATORY, a department of the Leland Stanford University, has been located at Pacific Grove, California, and will hold its first session of five weeks, commencing June 27th, during the present summer. Pacific Grove is a sea-side resort on the southern shore of Monterey Bay, two miles west of Monterey, and the seat of the Pacific Coast Chautauqua Assembly. Through the generosity of the Pacific Improvement Company, a piece of land has been furnished, and a sum donated sufficient to erect a plain frame building; and by

the liberality of Mr. Timothy Hopkins provision is made for the equipment of the building, and for the future continuation and extension of the enterprise. The library and apparatus of the University laboratories will be used.

An elementary course in marine botany will be given by an assistant selected by Dr. Campbell, as the engagements of the latter will prevent his being present during this season.

IN THE *Annals of Botany* for April Mr. W. A. Setchell presents the results of his examination of the species of the genus *Doassansia*. He recognizes 12 species, of which two, *D. obscura* and *D. deformans*, are new, occurring on the stems of *Sagittaria variabilis* in Massachusetts and Connecticut. Two new genera, *Burrillia pustulata*, in honor of Dr. T. J. Burrill, and *Cornuella lemnae*, in honor of Prof. M. Cornu, are also described, the former from Illinois and Wisconsin and the latter from Massachusetts. In the same number, Dr. D. H. Campbell discusses the prothallium and embryo of *Osmunda* and suggests the bearing of the observed facts on the phylogeny of the ferns. Bacteriologists also will be specially interested in the article of Mr. H. M. Ward on the characters or marks employed in the classification of the Schizomycetes, at the conclusion of which he suggests the questions which should be answered by bacteriologists before they publish a species as new. These relate to habitat, nutrient medium, gaseous environment, temperature, morphology and life history, and special behavior.

THE UNIVERSITY OF MINNESOTA has begun the publication of a *Quarterly Bulletin* under the editorial management of Prof. Conway Mac-Millan, and the direction of a board of editors appointed from the various faculties of the University. The following items of botanical interest are taken from the first number:

Work upon the botanical survey of the state is being pushed with vigor. Three collectors last season brought in more than 20,000 plants, covering in their exploration pretty thoroughly the valley of the Minnesota. This season four collectors are in the field. It is the intention to gather largely for exchange, with a view to strengthening the herbarium in plants of the southern hemisphere. The collectors will give special attention to the fungi, lichens and algæ.

Dr. Albert Schneider has in press in the Minnesota Academy a paper criticising Jumelle's researches on the influence of anesthetics on transpiration. (See this journal xvi, p. —.) His experiments lead him to the conclusion that ether *retards* transpiration by retarding assimilation, under all conditions. Jumelle's results were faulty in the use of parts only of plants and in confounding evaporation with transpiration. The increased loss of water vapor from anesthetized vegetable tissue is due to the alteration of the primordial utricle by the ether, allowing evaporation to take place.